Defense Advanced Research Project Agency (DARPA) Information Assurance Program

Secure Open Source OS Workshop

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Information Systems Office

IA Information Assurance
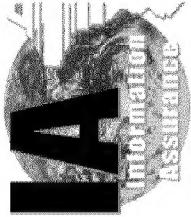
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The National Security Agency (NSA) Joint Technology Office (JTO) and Defense Advanced Research Projects Agency (DARPA) Information Assurance (IA) Program are hosting a series of workshops to investigate leveraging open source OS to improve the robustness of systems it uses for critical functions.

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Background:

The National Security Agency (NSA) Joint Technology Office (JTO) and Defense Advanced Research Projects Agency (DARPA) Information Assurance (IA) Program are hosting a series of workshops to investigate leveraging open source OS to improve the robustness of systems it uses for critical functions.

This is the first such workshop.

Workshop Objective:

Foster creation of more trustworthy commercial systems for use within DoD systems.

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Specific Goal:

On the theory that open source operating systems may be more robust and potentially more secure because of the larger research community refereeing the code and contributing to it, what can the government do to foster the development and use of such systems.

Secondary specific goal: expose the community to major GNU/Linux related work.

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Workshop Detailed Goals:

- Vision –
  - ◆ What is the desirable end goal?
  - ◆ What properties do we seek of the operating system?
    - Robustness? Fewer implementation flaws? Sound design? Security features? Fail-safe?

- Hard problems –
  - ◆ What is in the way of achieving this vision?
  - ◆ Technical and business?

- Who will do a reference implementation?
  - ◆ Do we need to work with standards bodies?
  - ◆ Is there a sufficient market?
  - ◆ Can the Government drive market through specified consumption?
  - ◆ What is the right market model for popular distribution?
  - ◆ How can Government goals and commercial goals be unified so there is one distribution that meets both ?

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Technical Approaches:

● How might we overcome the major technical and business problems?

◆ **Government produced reference implementation?**

Recommendations:

● What sort of investments and policy might the Government make to advance the most promising technical approaches?